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=> d his

     (FILE 'HOME' ENTERED AT 17:17:08 ON 09 JUL 2008)
     FILE 'CA' ENTERED AT 17:17:39 ON 09 JUL 2008
L1  9466 S (FABRY OR FABREY)(1A)PEROT
L2   119 S L1(6A)(COAT? OR (SENSING OR SENSITIVE OR SENSOR)(1A)(LAYER OR
         FILM)) OR(L1 AND (CHEMOSELECTIV? OR CHEMOSENS?))
L3     8 S L2 AND(CHIP OR INTEGRATED OR MEMS OR CHEMOSELECT? OR CHEMOSENS?)

=> d bib,ab l3 1-8

L3   ANSWER 3 OF 8  CA  COPYRIGHT 2008 ACS on STN
AN   147:85647  CA
TI   All-optical micromechanical chemical sensors
AU   Stievater, Todd H.; Rabinovich, William S.; Ferraro, Mike S.; Boos, J.
     Brad; Papanicolaou, Nicolas A.; Stepnowski, Jennifer L.; McGill, R.
     Andrew
CS   Naval Research Lab., Washington, DC, 20375, USA
SO   Proceedings of SPIE-The International Society for Optical Engineering
     (2007), 6464(MEMS/MOEMS Components and Their Applications IV), 64640D/1-
     64640D/10
AB   The authors describe exptl. results from micromech. resonators coated
     with chemoselective polymers that detect chem. vapors from volatile org.
     compds. or explosives using all-optical interrogation.  The shift in the
     resonant frequency of a gold microbeam is read-out using photothermal
     actuation and microcavity interferometry.  For detection of toluene
     vapor, response times of <5 s are achieved for vapor concns. ≥60 ppm.
     For detection of TNT vapor, concns. ≥10 ppb are detected in 100 s.  An
     anal. of the measured frequency noise in these sensors shows that it is
     dominated by thermal-mech. fluctuations at the fundamental flexural
     mode.  The measurements thus indicate that thermal-mech. frequency noise
     is the primary intrinsic detection limit for typical resonant-frequency
     MEMS biosensors or chem. vapor sensors.

=> log y
STN INTERNATIONAL LOGOFF AT 17:30:01 ON 09 JUL 2008
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